

REMARKS

Favorable reconsideration is respectfully requested.

The claims are 1 to 6 with claims 1 to 4 being withdrawn from consideration.

Claim 6 is rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Ishikawa et al. (U.S. 6,132,856).

This rejection is respectfully traversed.

The structure of the component of an inorganic fiber-bonded ceramics (C) of Claim 6 is in some respects similar to the structure of the highly sintered SiC fiber-bonded material disclosed by Ishikawa et al. However, an essential feature of the present invention is as set forth in claim 5, lines 10 to 12, in the following recitation: "wherein the component has a curved surface and/or an inclined surface and the fibers are aligned in a surface shape of the curved surface and/or the inclined surface".

The rejection indicates "the fibers may be aligned (column 3, lines 45 to 53)" (Section 5, line 5). In reply, Ishikawa et al. has the following disclosure in column 3, lines 45 to 54.

The fiber material constituting the sintered SiC fiber-bonded material of the present invention can have any one of an aligned state similar to a laminated state of a unidirectionally arranged sheet-like substance, an aligned state similar to a laminated state of two-dimensional fabrics, an aligned state similar to a state of a three-dimensional fabric or a random-alignment state, or it can have a composite structure of these. A selection is properly made from these depending upon mechanical properties required of an article as an end product.

The significance of this disclosure is as follows:

The fiber material constituting the sintered SiC fiber-bonded material of the present invention can be formed in a laminated, unidirectionally arranged sheet-like substance, a laminated two-dimensional fabric, a three-dimensional fabric, a random-alignment or a composite structure of these. The state of the fiber material is selected depending upon mechanical properties required for a material having an intended form.

As is obvious from the above explanation, Ishikawa et al. do not disclose “wherein the component has a curved surface and/or an inclined surface and the fibers are aligned in a surface shape of the curved surface and/or the inclined surface” which is an essential feature of the present invention.

In the prior art, a component of inorganic fiber-bonded ceramics was obtained by machining an obtained board material. Interlayers of inorganic fiber-bonded ceramics were exposed on the surface of the component and fiber-reinforced portions and interlayer portions were co-present. In this case, when a large stress is exerted on a surface portion where the fiber orientation is disordered or a surface portion where the interlayers are exposed, cracks occur. The cracks mean peeling of fibers of the surface portion or delamination.

Owing to the above feature of the present invention, the present invention can provide inorganic fiber-bonded ceramic components having a variety of forms wherein fibers are closely aligned, without any exposure of interlayers on the surface of the inorganic fiber-bonded ceramic components. Accordingly, peeling of fibers of the surface of the component or delamination can be prevented and durability as a component can be improved.

This feature is in no way disclosed or suggested by Ishikawa et al.

Claim 5 is rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Japanese document 09-52776 (JP ‘776).

This rejection is also respectfully traversed.

The component of an inorganic fiber-bonded ceramics (A) is the same as a fiber-bonded ceramic disclosed by JP ‘776. However, JP ‘776 does not at all disclose or suggest the feature of the present invention recited the bottom 3 lines of claim 5, i.e. “wherein the component has a curved surface and/or an inclined surface and the fibers are aligned in a surface shape of the curved surface and/or the inclined surface”.

The functions and effects obtained by the above feature are neither disclosed nor suggested by JP ‘776.

As is apparent from the above discussion, claims 5 and claim 6 are unobvious from the teachings of the cited references.

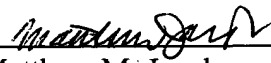
No further issues remaining, allowance of this application is respectfully requested.

If the Examiner has any comments or proposals for expediting prosecution, please contact undersigned at the telephone number below.

Respectfully submitted,

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